Spring 2006
Industry Study

Final Report
Financial Services Industry

<u>The Industrial College of the Armed Forces</u>
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FINANCIAL SERVICES 2006

ABSTRACT: The U.S. is the global leader in the financial services industry. The dominant U.S. position is grounded in three key aspects: competition, information, and trust. Trust in the U.S. financial system is based on a mature regulatory system which includes a government that sets and enforces rules, encouraging market transparency. Future challenges include overseeing a complex and globally connected industry, maintaining public trust, and protecting against systemic failure. The U.S. should adopt a two-prong approach to address these challenges. The outdated regulatory framework should be reviewed and the cost-benefit from regulatory requirements should be reexamined. Adopting these recommendations will help ensure the continuation of the U.S. as the global financial leader.

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Legg Mason, Baltimore, MD
Smith Barney, Baltimore, MD
Stifel Nicolaus, Baltimore, MD
Securities and Exchange Commission, Washington, DC
Navy Federal Credit Union, Vienna, VA
UBS, Washington, DC
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Capital Group Companies, New York, NY
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Tokyo Star Bank, Tokyo
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GE Capital Finance (China) Company, Shanghai
Citigroup Global Transaction Services, Shanghai
JP Morgan, Shanghai
AIA, Shanghai
China Insurance Regulatory Commission, Shanghai
Shanghai Stock Exchange, Shanghai
Dalian Commodity Exchange, Dalian
Bank of China, Dalian
Hewlett Packard, Dalian
Pfizer Pharmaceuticals, Dalian

Introduction

"This note is legal tender for all debts, public and private." These words can be found printed on all U.S. currency notes in proximity to the seal of the U.S. Federal Reserve bank. This declaration is what allows bearers of such bills to have the trust and confidence in the U.S. financial services structure necessary to imbue an otherwise worthless piece of linen and cotton paper with the weight of its printed denomination. In the financial services industry, it is this same trust and confidence that underpin not only the physical products of the industry—currency notes, mortgage papers, insurance policy statements, stock and bond certificates—but also the system itself in which these instruments are bought, sold, credited, or held. The effectiveness and efficiency with which this system operates ultimately drives the ability of the U.S. economy to function.

The United States' position as a global economic leader rests on a financial infrastructure that is second to none in size, liquidity, complexity, and trust. The financial services industry impacts the daily lives of all Americans. We rely on it to save for our retirement and our children's education, pay our bills, insure against risks, buy our homes and automobiles, and transact our daily personal business. Governments and businesses look to the industry to fund corporate expansion, finance improvements to public infrastructure and education, and raise money to pay government debt. The more efficiently the financial services industry can meet these needs, the more effectively individuals, governments, and businesses can attain their goals. In short, it is no exaggeration to state that a trusted, well functioning financial services industry is the foundation of U.S. economic prosperity. Without the ability to tap into additional financial capital, industries supporting national security would be unable to provide support necessary to carry out the nation's grand strategy.

This paper takes a broad view of the entire industry as the primary underpinning of the world's economies. It compares and contrasts the financial services industry operating in the more mature economies of the U.S. and U.K. with the financial services industry operating in Japan (which is in the latter stages of transition from a more directed economy) and in China (which is just beginning to emerge from a command economy). Our studies of the industry yielded three themes necessary in these different operating environments: competition, information, and trust. As we examine the current industry conditions, challenges, outlook and the role governments play relative to the industry, we will consider these three themes. We then take a deeper look at competition, information, and trust, and highlight related issues that emerged from our field studies and research as areas deserving further consideration by appropriate government entities. We include a number of conclusions and policy recommendations aimed to improve the ability of the financial services industry to support the nation's economy and industrial base.

Financial Services Industry Defined

Industry participants include lenders and investors, borrowers and issuers. In order to ensure that financial capital is directed toward desired purposes, participants interact in financial markets for securities, bonds, futures and options, utilizing financial intermediaries such as retail and investment banks, credit unions, investment brokers and dealers, or insurance companies, as well as "financial utilities" that provide payment, clearing, and settlement procedures. With globalization, participants in U.S. financial services may be from the U.S., or they may be from

other nations. U.S. participants, likewise, may also choose to participate in foreign financial institutions in order to gain access to or operate in international markets, hedge currency risk, or seek alternate regulatory environments. Ideally, transactions that occur in the financial realm must be sufficiently transparent to guarantee participants mutual benefits.

In order to maintain the trust and confidence in the financial services industry, oversight of the system is critical. Within the private sector, the financial services industry includes credit and debt rating firms, auditor and accounting firms, and industry associations looking out for the interests of industry sub-sectors. In the U.S. public sector, the industry relies upon the Federal Reserve as the nation's central bank for monetary policy and banking oversight, as well as upon the U.S. Department of the Treasury and federal commissions charged with regulating the financial markets and those who participate in them (such as the Securities and Exchange Commission (SEC), the Commodities and Futures Trading Commission (CFTC), and the Federal Deposit Insurance Commission (FDIC)). State Attorneys General play a large role in the oversight and application of both state and federal regulations as well. In recent years, state Attorneys General have had a significant impact on industry oversight, providing a measure of transparency never before seen in the financial industry. Recent financial scandals, such as at Enron and WorldCom, have reemphasized the need for a continuing balance between regulation and free market operations.

Current Industry Conditions and Outlook

Size and Impact

The financial services industry has been increasing as a percentage of Gross Domestic Product (GDP) for many years. In the late 1970s, the industry accounted for about two percent of nominal GDP. By 2003, due to significant growth, the industry accounted for roughly four percent of GDP. In addition to its growing importance, the industry has developed an undeniable global comparative advantage through the export of financial services beyond the territory of the U.S. The industry has consistently been a net exporter of services, and between 1997 and 2004 exports increased by about $15 billion to $27 billion, while imports increased by only about $5 billion to $11 billion (Bush, 2006). The financial services industry is a significant contributor to the overall economic health of the U.S.

The impact of the U.S. financial services industry extends throughout the world. Our financial markets offer efficiency, transparency, and liquidity. The U.S. dollar is integral in many international transactions, serving as a medium of exchange and a unit of account. This makes dollar-denominated claims an attractive component of an international portfolio. Coughlin, Pakko, and Poole (2006) summed it up well when they concluded, "No capital market in the world has a combination of strengths superior to that of the United States…include(ing) the promise of a good return, safety, secure political institutions, liquidity and an enormous depth of financial expertise" (para. 14-15).

Competitive Forces

Generally speaking, there is a constant pull of two opposing forces affecting financial services firms which determine the industry's competitive environment: fragmentation and consolidation. Periods of financial services industry fragmentation have tended to follow changes in regulatory environments that have favored a reduction of barriers to entry or increased information transparency. When new financial service innovators join the industry, they often

bring new technological or product innovations that result in increased price competition. While fragmented financial markets may result in price improvement for consumers, they may also prove to be inefficient at matching lenders with borrowers, or investors with issuers. As such, financial "liquidity," or the pool of available money, may be shallow. When liquidity is not deep enough to match those who need money with those willing to provide money, the industry experiences the opposing force—consolidation—as firms merge or acquire other industrial participants in order to increase the depth of the liquidity they have available. In recent years, court rulings and regulatory changes have created an environment favoring consolidation for firms searching for economies of scale and scope. The Gramm-Leach-Bliley Act (GLBA) formally eliminated the separation between commercial banking, investment banking, and insurance companies allowing financial services firms to offer an increased number of products and services. Despite the favorable climate for consolidation, some firms are discovering that merger and acquisition activity must only be undertaken for strategically sound reasons.

Changes in technology and information availability are causing changes within the marketplace. Some sectors are being pushed toward commoditization. The quick ability for consumers to compare prices on products such as mortgages and insurance is making it more difficult for firms to compete based on differentiation. Price competition is becoming more and more important and firms are being forced to cut costs in order to remain competitive. The introduction of Electronic Communication Networks (ECNs), which are automated stock trading networks, has also had an impact on competition. Traditional exchanges have been forced to shift operational methodologies. In order to remain competitive, firms must maintain connectivity, increase availability of systems, and increase the degree of security provided.

Regulatory Programs and Policies

Millions of U.S. households have a vested interest in the integrity of the U.S. financial market. The Government Accountability Office (GAO, 2004) has found that, "To a greater degree than ever before, the products offered by the financial services industry, such as mutual funds and insurance, are important to the financial well-being and retirement security of U.S. citizens. However, as a result of technological advances and globalization, consumers and businesses may also be more vulnerable to fraudulent and abusive practices in the marketing of financial services" (p. 192). Since the 1930s, the government has sought to maintain public confidence in the financial markets through various regulatory programs and policies. The goals of the regulatory scheme include fair and open access to the markets and protection of the investing public from fraud and abuse. Over the years, the industry has changed significantly, raising questions about the proper type and amount of regulation. Recent scandals have also brought into question the sufficiency of financial accounting and disclosure models and the adequacy of corporate governance.

With the number of individuals participating in the financial services markets increasing, adequate risk disclosure and assurance of financial privacy are growing in importance. In addition, the emergence of new areas of risk, such as identity theft and illegitimate use of the financial markets to facilitate money laundering or terrorist activity, require unique approaches to protection. These represent new areas requiring regulatory consideration.

Accounting-related reforms and other increases in regulation will continue to represent significant costs for the industry. Analysts project that from 2005 to 2008 a large portion of the $544 million estimated cost for SEC mandated Regulation National Market System compliance will be spent on data management (Allen, 2006). The forecast for Sarbanes-Oxley Act (SOX)

services worldwide will increase from $3.6 billion in 2005 to over $33.8 billion by 2010 (Hewlett Packard Development Company, 2006).

Global Factors

The world appears to be transitioning from one comprised of individual national economies to one characterized by an interconnected web of regional economies. It is not difficult to imagine that in the near future a truly global economy will emerge. Past financial crises in Latin America and Asia highlighted the need for greater international financial cooperation. As such, the U.S. increasingly needs to consider the health and functioning of the world's financial systems in order to maintain long-term U.S. national strategic and political objectives. To achieve these ends, the U.S. works on a bilateral and multilateral basis to address regional and global financial issues. For example, the U.S. helps promote global economic health by its active involvement with the International Monetary Fund and the World Bank.

Globalization is becoming the new differentiator, particularly in the banking sector. The competitive advantage for global firms such as Citigroup, HSBC, JP Morgan and Deutsche Bank is that they can balance portfolio risk by taking advantage of business shifts occurring in local markets and shifting investments accordingly. Take, for example, the fact that in 2005, 20 of the largest 25 initial public offerings were listed in stock exchanges outside the U.S. (Ernst and Young, 2006). In order to best represent their customers, investment banks must have a global capability or risk missing important opportunities. Western banks continue to position themselves in China's marketplace in order to take advantage of this emerging market. Without advances in Information Technology (IT), this global shift would be impossible. The communication of data with great speed and the confidence that it is secure is a necessity in the global marketplace.

Outlook

The range and impact of the products and services provided by the financial services industry continues to grow worldwide. With the exception of some firms in the insurance sector, financial services firms are earning record profits. According to Fortune (2006), commercial banks, securities, and insurance are all in the top 20 most profitable industries based on return on revenues. The overall outlook for the financial services industry is positive. Growth, combined with innovative product offerings, makes this an exciting industry. Based on our study, the three biggest factors impacting the industry are: competition, information, and trust. Competition will remain a driving factor for both the short-term and the long-term. The importance of information will only increase with time. Competitors will survive in the long-run by making information a core competency in their operations. Trust will always be a critical issue for the financial services industry.

The U.S. macroeconomic outlook for the next 1-5 years is widely viewed as positive, despite high oil prices, large fiscal and trade imbalances, and a low-level concern about the housing market. GDP growth remains strong, with an annual rate of 3.2 percent for the first quarter of 2006 (White House, 2006). Because the financial industry continues to innovate and grow, we are guardedly optimistic about its short-term outlook. Competition is likely to remain strong. In order to maintain profit margins, cost containment will continue to be a strategic driver for firms within the industry. This will remain a challenge due to high costs associated with regulatory compliance. Consumer and business demand for information will remain high, and therefore a sound IT infrastructure must continue to expand to enable the industry. Financial

services firms will continue to invest in technology to meet the public demand for safe and fast transactions. Firms will continue to compete for access to the "best" information, and firms will seek to develop ways to access information more quickly, enabling faster market access.

Maintaining the public trust is an integral component needed to keep the industry healthy. This is particularly important in the short-term since there are still many scandals fresh in the minds of the investing public. The new regulatory challenges that have arisen due to growth and innovative product offerings must be addressed. At the same time, new regulatory authorities and increasing resources are available to improve securities regulation. Regulators must effectively use these new tools "to assess the impact of trading mechanisms and market participants" (GAO, 2004, p. 191). The government's role continues to be a balancing act of maintaining financial market stability and public trust while encouraging efficiency and flexibility to meet customer needs.

The long-term outlook for the U.S. financial services industry is also generally positive. The U.S. economy and financial markets are the largest in the world. Barring a major systemic failure, we will remain a leading player globally far into the foreseeable future—and will very likely remain the predominant global player. However, the key caveat here is that the concept of a "U.S. financial services industry" will continue to erode with time. As firms become increasingly global in ownership, operations, and outlook, we believe that by 2025 it could prove difficult to say whether a Citigroup or a Merrill Lynch will be U.S. companies. This does not necessarily indicate a problem, but rather a shift in paradigm similar to what has already been happening in the auto industry (for example, is a Honda built in Alabama a Japanese car or an American car?).

Contributing significantly to the positive long-term outlook is the competitive nature of the U.S. financial services industry. Competition is strong both domestically and internationally. In order to survive, firms must be innovative and profitable. Firms are forced to make strategic modifications constantly. Mergers and acquisitions are commonplace to gain efficiencies of scale and scope. However, firms strive to maintain competitive advantage, even if it means divesting a non-profitable portion of their business, as Citigroup and Legg Mason have done.

Information transparency and technology will remain a critical driver of the industry. The financial services industry will continue to be a leading developer and adopter of innovative IT solutions. As the industry relies more on IT, new security measures will be developed to guard this critical infrastructure and the most competitive firms will lead the way.

Realizing the importance of trust, the U.S. has responded to recent scandals. Implementing SOX, is a recent example of how the U.S. market has developed the most demanding regulatory environment in the world. The faith in the regulatory environment to protect the public made the effects of setbacks like the WorldCom and Enron scandals of relatively short duration. In addition, the U.S. banking system is more evolved, better regulated, and on sounder financial footing than the rest of the G8 plus China. U.S. firms dominate the market internationally, generating enormous profits which attract wealth and talent from around the globe.

Roles and Goals of Government

Views on the roles and goals of government vary widely. The U.S. government pursues capitalistic goals through highly regulated roles. On the other hand, China and Japan pursue highly regulated, government goals using less regulated roles. To illustrate, the mature capital economies of the U.S. and U.K. accept that the only proper role of government in the financial services industry is to maintain public confidence in the financial markets and prevent market failure. This is achieved through a regulatory balance between protection of the public and the ability of markets to operate freely. Other states, such as Japan and China, see a more directive role for government regulation of their financial services industries. Regardless of the degree to which the state accepts government direction of the capital, banking, and insurance markets, for the financial services industry in particular, the public's confidence in the integrity of the financial markets is critical both to the growth of a nation's economy and the ability of firms operating therein to continue using the markets to raise new capital (Mishkin & Eakins, 2003).

In the U.S., prior to the Great Depression most regulation surrounding the financial services industry was at the state level. Federal regulation began in 1933 in the aftermath of excessive bank failures. A number of regulations aimed at reducing systemic risk were passed from 1933-1935, and during this period financial services were regulated as if they were utilities. For banking, the most important regulation was the Glass-Steagall Act, which separated investment and commercial banking activities (thus restricting commercial banks from risking deposits in investment activities). In order to regain the public's trust, the terms of industry competition were severely restrictive to ensure that the possibilities for systemic failure were reduced. From the 1930s through the 1970s, "federal regulation of the financial services sector continued to expand…By the early 1970s the financial regulatory tide had peaked and was beginning to recede. The reform and retreat of federal financial regulation in the 1970s was part of a larger public policy trend toward less regulation of prices and of entry for a number of service industries" (White, 2000, p. 7). Despite the recent deregulatory activities, the financial services industry remains the most regulated industry in the United States.

U.S. regulators are separated into different commissions chartered to oversee distinct portions of the financial services industry. For instance, the SEC oversees the trading of securities, while the CFTC oversees commodities and futures trading. The U.K. offers a different regulatory model, where the Financial Services Administration oversees all financial services in the country, combining under one roof the regulatory activities that in the U.S. are housed in eight different agencies (Mishkin & Eakins, 2003). Japanese regulation is structured similar to the U.K. regulatory model, with one regulatory agency for all parts of the industry. While there are some structural differences in the Japanese market worth noting (for example, banks in Japan are legally allowed to act as intermediaries for securities companies), for the most part Japan has a regulatory environment similar to the Glass-Steagall days of U.S. regulation, where competition is limited and the market is segmented. In Japan, the goal of regulation was to foster growth during the postwar period, which contributed to rapid economic expansion for a number of years. However, as the environment changed, the regulatory approach did not adapt well (Takahashi & Kobayakawa, 2001). In China, regulation is modeled closely on the U.S. separation of regulatory functions, and regulators play a heavy hand in determining what firms are allowed to compete in the Chinese market and where investors are allowed to invest their money. Chinese regulators defend such directed participation as necessary to ensure that Chinese accession to the World Trade Organization is harmonious and not disruptive to the Chinese population.

In the U.S., the two most recent pieces of regulation impacting the financial services industry, the SOX and the GLBA, illustrate how even in the U.S., the government continues to struggle with achieving the correct balance between public protection and competition. Passage of GLBA in 1999 formalized deregulation of various aspects of the financial services industry. The intent of GLBA was to increase competition and efficiency in the market. Passage of SOX in 2002 was aimed at protecting the public and revitalizing public confidence in the financial markets after financial scandals such as occurred at Enron and WorldCom. SOX established a new Public Company Accounting Oversight Board under the authority of the SEC and implemented a number of accounting-related regulations. SOX has helped to restore faith in the equity market system and helped level the playing field between the investor and those who have access to inside information. However, several unintended consequences have resulted. Section 404 of the SOX requires a significant investment in audited internal controls by publicly-traded companies, and the high cost of implementation has resulted in a shift of Initial Public Offerings (IPOs) away from U.S. exchanges in favor of capital markets in "friendlier" overseas regulatory environments. Additionally, the loose wording of the Section 404 internal controls requirement has caused firms to expand the scope of the assessment in order to protect against litigation.

As the U.S. government continues to struggle to determine the proper balance between protection of the public and free market activity, it is important to realize that the playing field has changed. With the increasingly global financial market, regulating within the U.S. is unlikely to provide consumers with the same level of protection that it had previously. During our studies, we were pleased to find that U.S. regulators frequently hold dialogs with each other to ensure that seams between regulatory commissions are minimized. Additionally, U.S. regulators dialog with their international counterparts on a regular basis. One firm we met with in Japan mentioned that previously, if they were involved in discussions over a particular issue or problem with the Japanese Financial Services Agency, the firm would have needed to inform the appropriate regulator in the U.S. themselves. Now, U.S. and Japanese regulators are likely to work together to resolve issues earlier in the process. Due to the globalization of money flows, the U.S. government should continue to maintain robust discussions with the goal of working toward global regulations.

The U.S. government also needs to consider the impact of the financial services industry on the ability to support rapid mobilization in times of national emergency. There are two primary issues--the industry's ability to quickly raise funds to finance increased U.S. spending and its impact on the rest of economy's ability to mobilize. From a technical point of view, the financial services industry would be able to quickly facilitate the U.S. government's efforts to raise the necessary capital. The industry already handles trillions of dollars in transactions every day—adding a few hundred million more would not be difficult. However, the more important issue for mobilization is the industry's impact on the rest of the economy. The financial services industry is the primary mechanism within the U.S. economy for pressing firms to achieve greater efficiency of operations. While this benefits a peacetime economy, pressure from financial markets also squeezes excess capacity from industries—capacity that would be necessary to quickly ramp up production. Ironically, the financial services industry that helps bolster the U.S. economy and national power, also limits the U.S. ability to rapidly mobilize in time of war.

Financial Services Challenges

Competition, information, and trust will continue to pose challenges to the industry. The drive to increase trust at the expense of efficiency could erode the industry's global competitive advantage. The future outlook for the U.S. financial services industry is relatively positive, but there are potential storm clouds on the horizon that bear watching. Systemic failure in the financial industry would have significant implications for the U.S. economy and, in turn, the U.S. ability to project power on a global scale. As such, it is important for the U.S. government to develop early warning mechanisms to identify and head off problems, as well as ways to address/minimize the impact should any of these challenges occur.

The government regulatory agencies that oversee the industry need to strike the proper balance between exercising effective oversight and clogging the wheels of progress. The highly competitive nature of the industry drives firms to offer increasingly complex financial products (e.g. derivatives, hedge funds, interest swaps) that few fully understand. At the same time the size and speed of financial transactions continue to accelerate. For example, the number of transactions on the New York stock exchange on May 1, 2006 was nearly five times greater than on May 1, 2001—and more than 20 times greater than on May 1, 1996 (New York Stock Exchange, 2006).

However, U.S. regulatory agencies that oversee this increasingly complex industry face growing resource limitations. Although the SEC increased the size of its work force by 16 percent in 2004 in order to ensure it could adequately oversee the industry, it continues to suffer significant staffing losses (SEC, 2005). As SEC Chairman Christopher Cox testified in April 2006, the SEC's proposed 2007 budget would "at least expect to be able to stop shrinking the agency" (SEC, 2006).

At the same time, too much regulation or misguided regulation can be detrimental to the market. For example, we heard a broad consensus that certain aspects of SOX were extremely onerous, costly, and of little practical value. There is a widespread view that SOX went too far. In a related vein, the regulated federal flood insurance program is widely viewed as a failure, in part because it creates moral hazard incentives for people to continue to build property in flood plains.

U.S. regulators carry out their increasingly complicated responsibilities in a world with ever increasing global connectivity, competition, and consolidation. While there are significant benefits from these pressures, the increasing global competition within the industry also poses potentially significant challenges. For example, as firms within the industry continue to grow, innovate, and seek comparative advantage over their competition, they are increasingly developing new products and moving into new lines of business. For example, State Farm operates one of the biggest banks in the U.S., the Dutch ING Bank sells mutual funds in the U.S., and the Pentagon Federal Credit Union sells insurance. Changes like these blur the lines between previously distinct financial sectors and serve to complicate oversight and regulation of an already complex industry.

Like many other industries, the financial services sector within the US is also developing an increasingly international flavor. Consider these recent examples:

- The NASDAQ exchange now owns a 22.7 percent share in the London Stock Exchange (LSE) (NASDAQ, 2006)

- A major U.S. financial services company is marketing debit cards in China through a variety of channels, including the Communist Youth League of China
- Citigroup now operates in more than 100 countries and territories
- Several U.S. financial services firms have begun to move into China, in some cases buying non-controlling interests in Chinese banks. This trend will likely accelerate in 2007 after China lifts many of its protectionist rules to comply with WTO requirements

While these international linkages reflect the relative strength of the U.S. financial services, they also underscore potential regulatory challenges. For example, what rules apply when a major international bank engages in foreign currency transactions from five different offices around the world? How can U.S. regulators ensure the continued solvency and transparency of financial industries that are becoming increasingly international? And at what point do U.S. financial services firms move operations to other jurisdictions with lower regulatory requirements?

Perhaps the most telling example of increased U.S. linkage to broader, international financial markets is how the U.S. finances its ever growing federal debt. Financial experts and U.S. government officials were relatively sanguine about the increasing portion of U.S. debt held overseas. Although, as of March 2006, China held $321 billion in U.S. Treasury securities, this does not easily translate into influence over U.S. policies (Department of the Treasury, n.d.). Since the international market for U.S. debt is the most liquid in the world, China would only hurt itself if it decided to rapidly sell U.S. treasuries. In addition, while $321 billion is a lot of money, it only represents a fraction of the daily value in international financial transactions, 15 percent of total foreign-held U.S. debt, and less than 4 percent of the total U.S. national debt of $8.3 trillion. In other words, the consensus of the experts we met was that if China sold its U.S. debt, someone else would buy it, and Chinese investors would no longer have the advantage of higher, safer returns on investment.

However, at some point foreign investors may no longer view U.S. debt instruments as being secure. There is concern that the current U.S. fiscal position is unsustainable. In 2004, the federal government spent $1.22 for every dollar it obtained in revenue. That figure increases to $1.42 when you factor out offsets from social security payments and other off-budget items (Bush, 2005). Long run fiscal projections illustrate an explosive growth in the cost of Social Security, Medicare and Medicaid. GAO estimates that the current value of U.S. federal debt, long-term liabilities, and fiscal exposure is $43.3 trillion—or $147,000 for every American citizen (Walker, 2005). Should foreign governments and private investors begin to call into question our ability to finance this debt, the risk premium on U.S. securities will rise, forcing a rise in U.S. interest rates. This in turn would trigger higher rates for mortgages, credit cards, and car loans which in turn slows economic growth.

The industry must also work diligently to regain and deserve consumer trust. The recent spate of financial scandals in the U.S., Japan, and China damaged consumer and institutional trust in various aspects of the industry. Trust plays such a crucial role in the continued ability of the industry to act as a financial intermediary—and working to retain and in some cases rebuild that trust may prove to be an important challenge for the industry. As Bogle (2004) points out, in recent years, the public trust has been tested on three important fronts: faith in the stock market, faith in the corporate executives running publicly owned firms, and faith in the trustees that manage our money. In response to a loss of public confidence, there has been a renewed interest

in promoting integrity and transparency. According to Pricewaterhouse Coopers (2005), organizations should embrace the opportunity "to demonstrate the entity's strength, efficiency and stability through greater risk and capital disclosures", and it appears that firms are listening to this advice (p. 2). Many of the companies we met underscored the need to recover from actual or perceived ethics problems, noting that a bad corporate image is bad for the bottom line.

In addition, the industry must also be prepared to withstand and recover from attacks to the integrity of the financial system. With millions of transactions and billions of dollars moving through the global economic system every day, the financial services sector needs to operate effectively and efficiently 24 hours a day. As such, the industry faces the potentially daunting challenge of planning for and reacting to terrorist attacks, hackers and other criminal activity, as well as the potential impact of a global crisis—such as a pandemic. While the U.S. has made important progress in these areas in the aftermath of 9/11, it's not clear that other countries have taken steps to protect their portions of the global financial system against attack.

Perhaps the most significant challenge facing the industry is the unknown or little known systemic risk that threatens to undermine the financial system. The Federal Reserve, SEC, CFTC, and other federal agencies try to monitor the industry with an eye toward identifying systemic risks and heading off large scale crisis. In some cases, these agencies have done a good job in minimizing or isolating the impact of potentially system-wide problems. For example, the Federal Reserve stepped in and ensured liquidity in the banking system immediately after the 9/11 attacks. However, several of the most dramatic financial crises were largely unforeseen and, as a result, were all the more shocking to the overall system:

- The stock market crash in 1987
- Collapse of the U.S. Savings & Loan industry in the late 1980s-early 1990s
- The sudden, spectacular collapse in 1998 of Long Term Capital Management Hedge Fund
- The Asian financial crisis of 1997-1998
- The dramatic, sustained losses in the Japanese property and equities markets in the 1990s
- The rapid demise of Enron, MCI-WorldCom, and other companies resulting from state Attorneys' General investigations and lawsuits in the early 2000s

In hindsight, there were clear early warning signs that were largely ignored. Why the market (and in some instances regulators) missed these warning signs is open to considerable debate. However, this recent track record indicates the likely possibility that the seeds of the next financial crisis have already been sown. Only time will tell whether a problem currently lurking in the financial services industry will trigger a significant, systemic crisis in the future. One drawback of the highly segmented U.S. regulatory system is that no one agency scans the horizon for possible "icebergs", raising the possibility that the next crisis could hit at a seam. For example, several financial experts have expressed concerns about the derivatives markets, noting the lack of regulatory oversight (and thus relative lack of transparency), the extremely large, leveraged positions taken by major financial institutions, and the lack of widespread understanding of how derivatives function. In addition, the benefits of the U.S. economy becoming increasingly linked to the global economy also comes with a downside. Closer integration with overseas markets raises increased risk of market contagion in the wake of overseas financial or economic crisis. Whereas the U.S. suffered little impact from the Asian/Russian financial crises in 1997-1998, this would likely not be the case today. While the

U.S. regulatory system has demonstrated the ability to adapt to crisis after the fact, U.S. interests would be better served if regulatory agencies developed capabilities to head off problems before they become full-blown crises.

Competition

The financial services industry is clearly a very competitive, global industry. In each of the major segments of the industry (retail banking, commercial banking, insurance, and exchanges) there are several firms constantly working to develop competitive advantages. While some consolidation is occurring, this industry is quite close to the model for perfect competition. There are several factors which have driven competition over the past decade. New technology has lowered entry barriers across the financial services industry. Changes in regulations and customer expectations, as well as increasing access to information have worked in concert to increase competition. Changing regulations and reporting standards and the ability to provide transparency are forcing companies to think about how to structure operations to remain competitive in the future (Economic Intelligence Unit, 2005). Finally, the impact of increasing global interconnectedness cannot be ignored. New markets are emerging continuously. Large financial firms like Citigroup, HSBC and Deutsche Bank are constantly thinking about how to capture international business in their quest to gain and maintain competitive advantage.

Increased competition, combined with a focus on increasing profit margins, has had several impacts on financial services organizations. To remain competitive, companies have developed innovative product offerings and increased their focus on achieving economies of scale and economies of scope. Asset management firms have developed hedge funds in which sophisticated, wealthy investors can maximize their returns through very risky products. Investment banks have developed complicated interest rate swaps on corporate debt in order to find the most inexpensive debt capital available. Retail banks have created automated savings products to improve their clients' total balances. In order to compete successfully, economies of scale are necessary to combat increasing cost pressures. Similarly, economies of scope have become possible due to regulatory changes which have spurred a convergence of line-of-business offerings (BAI, UNISYS, & Wharton, 2001). All of these factors combined make the financial services industry a dynamic environment.

It is difficult to distinguish the competitive forces within the industry from the macroeconomic forces that shape the environment for financial services competition. Investment of trade surpluses and large domestic savings reserves by China, Japan and other foreign governments in the U.S. market is a form of "crowding in" that increases the supply of available credit and has contributed to keeping long-term interest rates low and the U.S. market awash in capital. There is high global demand for secure long-term debt instruments, while at the same time the supply of such debt instruments is concentrated in the U.S., where the economy, governance, and currency continue to offer global investors the most secure return available in the market. The demand stems in great measure from the large amount of global liquidity created by the persistent U.S. trade deficit and the high savings rates in China and Japan.

Since 2004, the Federal Reserve has raised the federal funds rate by 400 basis points, from 1 percent to 5 percent, in an effort to head off inflation in the U.S. During this same time, long term interest rates, as measured by the 10-year Treasury bond, have come down to nearly the same level. In fact, on April 27, 2006, the 10-year Treasury note stood at 5.09 percent and the 30-year note stood at 5.18 percent. Thus the yield curve is considered to be "flat," and the bank "spread" between the Fed rate and the 10-year rate is very thin. Two main factors have been

forcing the recent convergence of these two rates. The first revolves around the most basic economic law: supply and demand. The movement of capital by foreign countries into the U.S. to buy debt and equity continues when U.S. companies reinvest part of that capital overseas. The second factor involves the lowering of the term premium (up to 75 basis points) for inflation-adjusted instruments (such as Treasury bills) as a result of the market's lowered expectation of inflation. This adjusted expectation stems from the market's increased confidence in central banks in the U.S. and Europe to control inflation in the future, and has caused Treasury bill prices to rise and yields to fall.

Thus, as the world's central banks and governments create fiscal and monetary economic policy, the world's financial institutions compete within those environments to seek the best returns, grow their market share, and provide a measure of trust in their ability to function as financial intermediaries. In order to do so, many large financial organizations are facing the opportunities and challenges provided by international markets head-on. As they do so, they have to contend with the unique regulatory and cultural challenges posed by the countries they enter. The capital markets are undergoing a period of immense change as they attempt to deal with the global scale of requirements and information technologies that increase transparency and transaction speed. Because of SOX-related regulatory costs, international firms are increasingly seeking overseas markets instead of listing in the U.S.--only two of the 20 largest initial public offerings in 2005 were listed in the U.S. (Ernst and Young, 2006). The LSE is taking advantage of the more lightly regulated U.K. structure, and has been marketing its Alternative Investment Market, which does not involve financial or corporate governance standards as an alternative to a U.S. listing. The world's stock, commodities, and bond exchanges are themselves seeking international partnerships to enable listing companies to seek capital from foreign markets. Exchanges with an international reach allow traders to seek markets with deeper liquidity and fewer constraints on trading activities. So far, a regulatory standard for international exchanges has not emerged and regulators are struggling to determine more effective and efficient means of international oversight.

Trends such as commoditization and industry consolidation tend to increase competitive pressures within the industry. Commoditization is the process by which products are bought based solely on their price because they have become indistinguishable from other such products. In simple terms, financial services become commoditized when customers have such improved access to information that firms offering similar services are forced to compete solely on price. Commoditization can thus lead to price volatility—usually in downward terms, benefiting consumers. Fueling commoditization is a situation where illiquid financial contracts are changed or modified in a way that promotes trading and results in a more liquid market. Commoditization is thus happening as loans, insurance, and retail banking services are "securitized" through the bundling of assets (such as mortgages) by banks into packages sold as investment vehicles themselves. To increase capital, lenders can pool mortgage loans into packages to sell to investors at a discount, which allows the lending firms both to sell their exposure to potential loan default and acquire additional capital which they can use for other purposes. This practice is supported by U.S. Government Sponsored Enterprises such as the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (Cederholm, 2005). The commoditization trend has accelerated due to the movement toward electronic markets and automated trading--there is no specialization or differentiation between firms when securities trading is done electronically. The bottom line becomes transaction cost. Because of this trend, financial markets are becoming commodity markets, in which good,

standardized contracts exist, there is no concentration in supply or demand, the market is liquid, and the pricing is volatile.

Globalization and commoditization have increased competition throughout the financial services industry, causing structural changes in various segments of the industry. In the U.S. market, after interstate banking was permitted, the path was paved for the contraction of the retail banking portion of the industry from a fragmented market that for the most part operated only within state borders into a market where banks were allowed to merge and expand operations from coast-to-coast, and international retail banks such as HSBC and ING were able to enter the market. The forces for consolidation in the banking industry have been particularly attractive because growth of market share through expansion is expensive and time-consuming. The competitive environment for retail banking is now characterized by a number of large, multi-service "mega-banks" (such as Citibank and Bank of America) who compete both with local services, international transactions and underwriting, as well as smaller, primarily local or regional banks or thrifts who compete primarily to provide depository and lending services. Banks now compete to offer better and faster services with lower financing, preferred rates, and investment services (Investopedia, n.d.).

Similarly, the need to increase volume in order to maintain or increase profitability has generated substantial merger and acquisition activity among the world's exchanges. Consolidation of exchanges broadens the pool of liquidity and investment opportunities for market participants, and allows for the convenience of "one stop shopping". Domestically, such activity has primarily occurred in order to take advantage of technological innovations, as larger exchanges seek to leverage the advantages of automated trading systems. Regulatory changes that require greater transparency and speed in exchange operations have also fueled consolidation activity (Economist, 2006). Consolidation to accommodate trading in multiple types of financial instruments ("side-by-side" trading) is also seen as an area with great potential because many investors like the convenience of one-stop shopping for stocks, bonds, options, futures, and exchange-traded funds without having to use brokers as intermediaries. Merged exchanges with integrated products can offer the ability to conduct such transactions in multiple financial instruments. International market consolidation, another growing trend, has been viewed as a way of gaining economies of scale (particularly relating to clearing costs), as well as a means of seeking alternative regulatory environments.

As the competitive forces change the landscape of the financial services industry, we must consider what the future holds for the industry. New or non-traditional industry segments are developing that may characterize the way we buy, sell, borrow, and invest financial products. Examples include E-Trade and Pay Pal. The ability to transfer money to anyone with an e-mail address around the globe may develop into a different means of competing in the financial services industry. Currently, banks are deriving substantial fee-based income from payments services (Investopedia, n.d.) and Pay Pal's business has the potential to expand substantially beyond its current association with E-Trade and other online auction services. The potential for new, unforeseen industry segments creates exciting possibilities. Or will the traditional industry segments seek to acquire such innovative services themselves? One thing is clear: the future of the industry will be driven in large part by the demand for transparency of information. Our second essay thus addresses this topic.

Information

The second main driver of the financial services industry is information, encompassing issues related to transparency and IT. Fueled by competition in the industry, information drives the flow of liquidity through the financial markets. Information about interest rates allows borrowers and lenders to determine which institutions will be the best venues for trading their funds. Information contained in annual and quarterly reports, 10-K filings with the SEC, and in the news allows the equities markets to function as an efficient market, meaning that the price of any given stock reflects all known information about the underlying value of that security. Information contained in risk management databases allows the insurance industry to determine underwriting rates for customers. Information provided by credit rating agencies allows banks and investors to determine the fair price of debt products. In the absence of free flows of such information, the flow of liquidity through the financial services industry would be inefficient at best.

To understand the importance of information in various industry sub-sectors, consider the importance of information to insurance underwriting. The use of information databases in the U.S. insurance industry, primarily as a means of risk mitigation, relies on robust collection of information about their prospective clients. The U.S. is by far one of the leading countries in terms of personal data collection for use in determining individual risk both for insurance and for credit. In overseas markets, both Japan and China have a very limited amount of data on individual past credit and insurance risks. China specifically is only recently opening up markets for insurance, predominantly life insurance. China also has relatively no risk mitigation or management tools for determining price differentials of insurance that are truly risk based. However, the rate of growth of insurance companies in China has risen dramatically following the 2001 World Trade Organization mandate allowing foreign insurance companies access to a very large market.

Similarly, a Credit Rating Agency relies upon information to assist the market in determining the creditworthiness of sovereign countries and corporations. Three rating agencies (Standard & Poor's, Moody's, and Fitch) assign domestic and external credit ratings at the borrower's request. Scores are determined based on creditworthiness and the ability to repay loans and affect interest rates for the firm. A credit bureau or Consumer Credit Reporting Agency does individual credit ratings. Individuals are assigned a credit score based on the same criteria as above, with past credit history playing a large part in their rating.

In contrast, the lack of credit information in Japan and China (coupled with governmental pressure on banks) has resulted in a high number of non-performing loans in these countries. There, banks are unable to develop an accurate assessment of borrowers' creditworthiness and are otherwise forced to extend credit based on external factors (for example, in China, we were briefed on a Communist Youth Party program requiring all members to apply for a party-sponsored debit card, as well as a bank-sponsored credit card program where individuals were issued "gold cards" based only on their employment status with a government entity). In Japan, individual rating standards are based on the number of loans extended to a single individual from a specific institution. There are few individual credit databases to rely on, so loan defaults are not captured as part of credit histories. The lack of past credit data has resulted in a very high number of individual bankruptcy issues in Japan. Thus, where information is restricted and/or the government seeks to drive the market, loans become riskier and increase the risk of systemic failure.

Information technology provides the critical means through which financial information flows, and as such underlies and enables the entire industry. Financial services organizations must excel in IT in order to remain competitive, both in the private and public sector. Banking competitiveness is no longer gauged in household appliance give-aways seen prior to enactment of the GLBA, and differentiation cannot be achieved merely by providing access to a U.S. automated teller machine while traveling in Europe. The financial services industry now must use IT to enhance competition at all levels of the business, in the back office and the front office. Whether cutting costs or enabling international transactions, IT has become a strategic factor in the financial services business.

Self-service IT tools have combined with global interconnectedness and the evolution of power search engines, creating a world where anyone can have easy access to the information, research and analysis of equities without the need to retain a broker's services. These IT elements permit the amateur holder of a securities portfolio to buy or sell in accordance with information available on the world's exchanges. This has enabled the discount brokerages such as TD Waterhouse and Schwab, and driven the margins out of both the research and transaction side of the traditional retail brokerages such as Merrill Lynch and Goldman Sachs. At a strategic level, the fact that margins have become so thin due to IT becomes a driver when considering future business direction. Does an established financial firm continue to maintain expensive, labor-intensive business sectors in a world where expensive professionals bring low value to the transaction, or does a firm instead pursue business functions where specialized skills bring high value? Such strategic questions are driving some investment banks to undergo radical repositioning within the industry. Each firm must look inside the organization to find ways to decrease operating costs. Outsourcing of back office systems such as human resources, e-mail, financials, and supply network systems is a growing trend as a tactic to address rising costs. By contracting with IT vendors, financial services firms can shift away from large monthly IT back office costs associated with the running commercial-off-the-shelf operations. This permits more dollars to be shifted to supporting front office operations embodied in such systems as e-banking, self-service web applications, documentation systems and electronic trading systems.

In addition to such tactical adjustments to financial service operating structures, globalization is impacting financial services at a more strategic level. This is evident in the consolidation of commodity and security exchanges worldwide. The advent of the ECN is probably the single greatest factor driving the major shift in exchange strategies. Trading floors of specialists are quickly becoming a thing of the past, as more and more business is accomplished using ECNs. The early part of this decade witnessed a significant growth in ECNs in the U.S., after the SEC granted their ability to participate in the National Market System in 1996. As resultant business grew, even traditional exchanges, like the New York Stock Exchange and the LSE have been forced to shift operational methodologies. Major financial institutions are now spending their strategic energy on developing the best international distribution network. This demands a high degree of connectivity, high availability of systems, and an increased degree of security as international connectivity is established over the public internet.

While cost and service have driven many of the IT strategic shifts, speed and confidence are the focus forced by the growth of international banking and trading. Confidence is the single most significant tenet underlying all banking and investment. Without confidence in the system, savings will not move to investment and both short- and long-term growth will slow. While investments in security are required, security must be balanced with speed since minutes lost on a trade can cost millions of dollars. The future of financial computing lies in cost savings,

improved business process alignments, and enhanced customer service capabilities that Service-Oriented Architecture (SOA) initiatives can bring to the legacy IT systems of today. A software design process for business functions, SOA makes integrated data available for use by strategic partners, customers, suppliers, and internal users. In the course of a series of interviews with senior management, several financial services companies and government organizations mentioned SOAs as key to their future success or part of their migration path. The impetus driving the financial services industry toward SOA strategies includes pressure to generate increased revenue growth while simultaneously reducing overhead costs. In a market with relatively standardized asset management fees, companies seek to differentiate their services through SOA and web services. In a globalized marketplace where customers are expecting high levels of services from their financial institutions, access to their portfolios around the clock is a necessity. Financial institutions are using IT in an attempt to differentiate a commoditized asset or wealth management product line, support their sales forces and provide 24/7 service to clients.

Another means of ensuring transparency of information throughout the industry is the use of Extensible Business Reporting Language (XBRL) for the posting of accounting and financial information. The move toward using XBRL has been championed by a consortium of approximately 450 agencies and corporations worldwide known as XBRL International. According to XBRL International, "XBRL is a language for the electronic communication of business and financial data which is revolutionizing business reporting around the world. It provides major benefits in the preparation, analysis and communication of business information. It offers cost savings, greater efficiency and improved accuracy and reliability to all those involved in supplying or using financial data" (XBRL International, n.d.). Firms can use XBRL as they prepare and report their financial information, applying a uniform standard that allows investors, analysts, regulators, and financial institutions to compare and analyze these firms. As this electronic standard gains popularity internationally, it will allow for better comparison of financial data in countries that may otherwise adhere to different accounting or reporting standards. In an August, 2005 interview with the American Institute of Certified Public Accountants, Charles Hoffman, a Certified Public Accountant credited with being the "father" of XBRL, indicated that XBRL is evolving at varying rates in different countries around the world. By the end of 2005, he indicated that U.S. banking regulators would be collecting XBRL-formatted data from approximately 9,000 financial institutions. He also noted "It's important to understand that global adoption of XBRL is driven by market and regulatory forces that vary by nation. For example, the European Union's standards convergence and adoption of international financial reporting standards are fostering acceptance" (Hoffman, 2005). Anecdotally, when we visited the Shanghai Stock Exchange, we were provided with a brand-new marketing brochure regarding use of XBRL by the exchange. We found it particularly interesting and encouraging that the major Chinese stock exchange would be taking such concrete steps toward improving the flow of information in its capital markets.

Asymmetric information and the principal/agent risk are two principal market failures facing the financial services industry. To avoid these risks, the industry has created such tools as XBRL and supported such regulations as SOX, both of which dramatically improve information transparency. It is this enhanced transparency that gives investors the feeling of confidence that they can move savings into the market, and trust that they will have a fair chance at a return on the investment. Without transparency, confidence and trust would evaporate, and this industry would grind to a halt.

Trust

The third main driver of the industry is trust. In fact, trust is the foundation of the financial services industry worldwide. Indeed, as John Bogle (2004, para.1), founder of The Vanguard Group describes in the excerpt below, trust is the underlying principle that makes the capital markets function.

> Investing is an act of faith. When we purchase Corporate America's stocks and bonds, we are professing our faith that the long-term success of the U.S. economy and the nation's financial markets will continue…faith that our corporate stewards will generate high returns on our investments…faith that our professional (money) managers will be vigilant stewards of the assets we entrust to them. These are not merely principles that apply in the United States. They are universal principles that apply all over the globe.

As Bogle points out, trust in the financial services industry is rooted in several inter-related areas. Our work in the U.S., Japan, and China found that three key areas were especially important in building and maintaining trust: 1) a mature regulatory system; 2) a government that sets and enforces the rules, but does not pick the winners and losers; and 3) a market where participants enjoy equal access to generally reliable information to help make informed financial decisions.

Before individuals are willing to risk their money in a financial transaction, they need reasonable assurance that they will get what they paid for. For instance, when a homeowner signs a mortgage, he needs to know the terms will be upheld. When an investor reviews financial statements before deciding what stock to purchase, he needs to know that the statements are accurate. When an investment bank in New York decides to purchase 20 percent of a construction company in Japan, it needs to know the company actually exists and can be trusted to send profits back to New York. In all of these examples, a robust regulatory system helps provide a fundamental level of assurance. Individuals and investors need to know that their transaction will be completed and that they are making decisions based on honest information. In short, a mature regulatory system provides the rules for financial transactions, legal mechanisms to enforce those rules, and a judicial process that applies these rules and legal mechanisms in a consistent, transparent manner.

During the course of our work, we found that the U.S. regulatory system generally contributes to creating a relatively attractive climate for the financial services industry. While several firms commented on the divided and sometimes onerous nature of U.S. regulation, they also appreciated its certainty, fairness, and consistency. Although there is certainly room for improvement in the U.S. regulatory system, the contrast with other countries is striking. In the U.S., several of the largest, most influential financial services firms have had to pay significant fines for violating regulatory requirements. In contrast, the Chinese regulatory environment too often serves the interests of the state. As one financial analyst in China told us "China is governed by the rule of man, not the rule of law". While this has not yet hampered China's ability to achieve spectacular economic growth, the lack of transparency and consistent regulation in China's financial system is widely regarded as a potential barrier.

While government has an important role in regulating market activity and enforcing the rules, it's important for governments not to cross the line and pick the winners and losers. In other words, the regulatory functions of government should be applied evenly and fairly across

the industry—not selectively enforced or applied in a way to favor specific firms. For example, U.S. banks face stringent regulations on lending, are required to set aside funds to back loan portfolios, and must report on their financial statements. However, should a bank run into significant short-term liquidity problems, it will be backed up by the Federal Reserve system, which will step in to limit the damage. Active, predictable, consistent federal oversight like this helps build trust.

Conversely, the banking systems in Japan and China offer cautionary tales of the costs incurred when the government directly intervenes to pick winners and losers. Both countries have used their banking system to direct funds to preferred sectors of the economy as well as politically connected firms. In many instances, loans from banks at the behest of the government were never paid back, or were continuously rolled-over. Japan suffered serious economic stagnation during the 1990s partially due to the massive costs associated with cleaning up these non-performing loans. According to U.S. officials, Japan's economy turned around only when Japanese companies reformed their operations after it became clear the flow of easy money from banks would stop. In contrast, China has yet to take significant steps to improve transparency in its banking system and/or clean up non-performing loans. While the magnitude of the banking problem within China is still open to debate, in large part because of the lack of transparency, it is clear that the government's continued use of the banking system to pursue political and economic goals undermines international trust in the Chinese financial system.

Broadly equal access to information is the third major component in building trust in a financial system. The financial markets operate on the basis of millions of decisions by firms and individuals around the world. Regulators in the U.S. spend a great deal of time and effort ensuring that participants do not have an unfair advantage that can be used to exploit others. This is important because a small advantage in information can be leveraged into unfair gains. For example, in April 2006, the SEC announced it was filing charges against several financial service professionals who, among other things, allegedly recruited two individuals to steal advance copies of *Business Week*, used "exotic dancers (to)… garner information from bankers while dancing" and then traded on this information to garner allegedly illegal profits (SEC, 2006).

More importantly, a level playing field in access to information is a central tenet of the efficient markets theory. For financial markets to rationally and efficiently distribute and value resources, market participants need to have clear, consistent market information. If some players benefit from inside information or the ability to make market transactions before others, the market becomes distorted, with potentially significant effects. As Drabek and Payne note, "It is now widely recognized that the availability of timely and complete information is crucial in order to avoid the kinds of violent instability of financial markets that we have witnessed in recent years" (Drabek & Payne, 2001).

Policy Recommendations

The trends in the world's financial systems require modern regulatory and policy considerations, particularly in the U.S. Policymakers should consider changes that reflect the evolutionary market environment before any market failures occur. At the same time, policymakers should keep in mind that regulation of financial markets should exist only to prevent market failure and not to seek to affect market competition in artificial ways.

U.S. regulatory consolidation

Congress should take up the issue of merging the SEC and CFTC into one regulatory structure, given the consolidation of capital markets occurring as exchanges diversify to side-by-side trading platforms. The U.S. is the only country with a mature financial services industry that separates regulation of securities from regulation of commodities. A merged regulatory structure would eliminate the jurisdictional difficulties faced when considering sophisticated financial products that involve features of both equities and derivatives (such as hedge funds). A combined commission would be able to oversee exchanges that are involved in side-by-side trading more effectively. Finally, in the face of globalizing exchange operations, a merged entity would be more effective at representing U.S. market interests in international regulatory dialogs (Bothwell, 1995). While there exist some concerns that the domestic regulatory competition engendered by having two separate commissions should be maintained, the increasing practice of "regulatory arbitrage" by market participants demonstrates that international regulatory competition should provide the desired competition.

SOX

While the intent behind SOX was to improve investor confidence in the equities market, the short-term effects of SOX seem to be proving it too reactionary and causing firms to seek capital in foreign markets. On the other hand, in the long-term, SOX may turn out to drive a higher level of confidence in U.S. securities markets, making the U.S. the gold-standard venue for listings. The SEC has the power to make some small, technical changes to the implementation of SOX. If U.S. policymakers wish to maintain strong U.S. capital markets, some reform must be taken up. Creative alternatives to SOX exemption should be considered, however, as means of both retaining high standards while lightening the burden. Tax breaks based on compliance activities or other fiscal incentives encouraging compliance may be one means of accomplishing both goals.

International regulatory concerns

As financial markets continue to globalize, it will become more difficult for national regulators to oversee market activities from a uniquely national position. While cross-border consolidation of securities exchanges continues to accelerate, the regulatory regime has not kept pace. Over time, differences in regulatory environments will become part of the competitive advantage of individual securities exchanges. In order to maintain viable national markets, it will be in the best interest of regulators to allow competitive forces to trend toward international convergence upon a set of common regulatory principles. For example, one alternative means of accomplishing international market integration would be to establish mutual recognition agreements that would allow securities exchanges in different countries to provide direct electronic access to foreign brokers and investors while maintaining the structure of national market systems (Schich, 2003). In the mean time, securities regulators should focus internationally on issues of common concern and information sharing on such matters as market security measures and fraud prosecution.

Conclusions

The U.S. enjoys a strong, vibrant financial services industry—an industry that is currently the global leader and likely to retain that position for the foreseeable future. The dominant U.S.

position is grounded in three key aspects. First, its highly competitive nature has fostered a continuous process of refining old and developing new financial products to more effectively allocate financial resources. This often ferocious competition helps explain why U.S. firms have proven so adept at competing on a global scale. Furthermore, the industry has been a global leader and early mover in the realm of IT. This is partially a function of competition. Firms within the industry want and need to make instant, accurate transactions on a global scale. Those that have invested the most in cutting edge IT have generally become leaders, while those that lag behind in their ability to manage information run the risk of being left behind. Finally, the U.S. financial services industry is based on a relatively strong foundation of trust. This trust stems from three related aspects: 1) a mature regulatory system that is viewed as a benchmark by many other countries; 2) a government that sets and enforces the rules, but does not pick the winners and losers; and 3) a market where participants enjoy broadly equal access to generally reliable information to help inform their financial decisions.

While the U.S. financial services industry enjoys significant advantages in its ability to compete, use information, and engender trust, it also faces some important challenges in the years ahead. Regulators face the daunting challenge of overseeing an increasingly complex and globally connected industry—while simultaneously dealing with resource constraints. The industry must also continue to improve its tarnished ethical image to avoid an erosion in public trust in the financial system. At the same time, it needs to protect the integrity of that system against attack, as well as work with federal regulators to scan the horizon in an effort to head off and reduce the fall out from the next financial crisis. All in all, the industry will have its hands full with these challenges.

In order to better leverage U.S. strengths and address potential challenges in the financial services industry, we believe the U.S. should adopt a two-prong approach. First, the US should take the time to strategically review its regulatory framework now, before the next financial crisis. Many of the key regulatory agencies were created 70 years ago in the wake of the Great Depression. It's time to bring the fragmented U.S. regulatory framework up to speed with the 21st century. In addition, the U.S. should re-examine the cost-benefit pay-off from some aspects of regulatory requirements. Certain provisions of SOX are driving capital and business out of the U.S, with little apparent benefit. Finally, as national financial markets become increasingly global, the U.S. should continue in its efforts to work toward global convergence of regulatory principals. Adopting these recommendations will help ensure the U.S. continues to play the leading role in shaping the global financial system.

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